

# Epitomes

## Important Advances in Clinical Medicine

### General and Family Practice

The Scientific Board of the California Medical Association presents the following inventory of items of progress in general and family practice. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist busy practitioners, students, research workers or scholars to stay abreast of these items of progress in general and family practice that have recently achieved a substantial degree of authoritative acceptance, whether in their own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on General and Family Practice of the California Medical Association and the summaries were prepared under its direction.

Reprint requests to Division of Scientific and Educational Activities,  
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#### ***Chlamydia trachomatis* Infections**

DURING THE past decade, the importance of *Chlamydia trachomatis* as a human pathogen has become increasingly apparent. Although lacking the notoriety of *Neisseria gonorrhoeae*, *C trachomatis* is known to produce a similar spectrum of human illness and is now considered a major sexually transmitted pathogen in the United States. In fact, studies indicate that we are currently in the midst of a "*Chlamydia* epidemic."

*Chlamydia trachomatis* is an obligate, intracellular parasite that has been implicated in a wide spectrum of human infections. Genital chlamydial infections occurring in men include nongonococcal urethritis, epididymitis, lymphogranuloma venereum, proctitis and possibly Reiter's syndrome. In women *C trachomatis* has been implicated as a cause of pelvic inflammatory disease, acute urethral syndrome, mucopurulent cervicitis, Bartholinitis, lymphogranuloma venereum, postpartum endometritis and perihepatitis (Fitz-Hugh-Curtis syndrome). Neonatal infections caused by *Chlamydia* include inclusion conjunctivitis and afebrile pneumonia. Finally, the leading cause of preventable blindness in the world, trachoma, is also due to this microorganism.

The most sensitive method of diagnosis remains the tissue-culture isolation of *C trachomatis*. This test, though, is generally available only in laboratories of referral hospitals or large public health departments. Direct cytologic techniques for identifying *Chlamydia*-infected cells lack the sensitivity required for clinical use. Serologic tests are generally not useful in diagnosing current chlamydial genital infections due to a high prevalence of antibody from previous infections; they are of value in diagnosing neonatal chlamydial pneu-

monia and lymphogranuloma venereum.

As a result of the lack of a convenient, accurate test for diagnosing *C trachomatis*, decisions regarding diagnosis or treatment are frequently made on the basis of the clinical features, the exclusion of other possible pathogens such as gonorrhea and tracing contacts of patients who have nongonococcal urethritis, nongonococcal pelvic inflammatory disease and mucopurulent cervicitis. In view of the estimate that from 10% to 20% of men and 40% of women with gonorrhea are coinfecting with *Chlamydia*, consideration should be given to empirically treating these patients with an antibiotic regimen effective against *C trachomatis*. Effective regimens against *Chlamydia* include seven-day courses of tetracycline, 500 mg four times a day, doxycycline, 100 mg twice a day, and erythromycin, 500 mg four times a day.

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#### REFERENCES

- Guze PA, Bayer AS, Anthony BF, et al: Spectrum of human chlamydial infections—Teaching Conference, Harbor-UCLA Medical Center, Torrance (Specialty Conference). *West J Med* 1981 Sep; 135:208-225  
Holmes KK: The chlamydia epidemic. *JAMA* 1981 May 1; 245:1718-1723  
Schachter J: Chlamydial infections (three parts). *N Engl J Med* 1978 Feb 23-Mar 9; 298:428-435; 490-495; 540-549

#### **Human Insulin**

OUR ABILITY to artificially synthesize the amino acid sequence of human insulin was first achieved in 1963. Due to the low yield and the impurity of the product, human insulin has not been synthesized by this method. Porcine and bovine insulins have been the mainstays of diabetic insulin therapy. A newly developed method of human insulin synthesis has led to licensure and marketing of this product for widespread clinical use.